

CLAIMS

I claim:

1. A power distribution apparatus, comprising:
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a plug adapted to receive an AC power supply,
at least one AC power receptacle coupled to said plug,
10 a power conditioner coupled to said plug to convert said AC power supply to a DC power supply and to regulate said DC power supply to at least one DC voltage, and
at least one DC power receptacle coupled to said power conditioner.
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2. The apparatus of claim 1, wherein said at least one DC voltage comprises a plurality of DC voltages and said at least one DC power receptacle comprises a plurality of DC power receptacles.
3. The apparatus of claim 2, wherein at least one of said plurality of DC power receptacles
20 is adapted to a first polarity and at least one of said plurality of DC power receptacles is adapted to a second polarity.
4. The apparatus of claim 1 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus

further comprises at least one AC power receptacle coupled to said power conditioner.

5. A battery back-up apparatus, comprising:

5 an uninterruptible power supply unit providing an AC power supply,

at least one AC power receptacle coupled to said unit,

a power conditioner coupled to said unit to convert said AC power supply to a DC power
10 supply and to regulate said DC power supply to at least one DC voltage, and

at least one DC power receptacle coupled to said power conditioner.

6. The apparatus of claim 5, wherein said at least one DC voltage comprises a plurality of
15 DC voltages and said at least one DC power receptacle comprises a plurality of DC
power receptacles.

7. The apparatus of claim 6, wherein at least one of said plurality of DC power receptacles
is adapted to a first polarity and at least one of said DC power receptacles is adapted to a
20 second polarity.

8. The apparatus of claim 5 wherein said AC power supply is at a first voltage and said
power conditioner further produces AC power at a second voltage, and said apparatus

further comprises at least one AC power receptacle coupled to said power conditioner.

9. A computer power supply, comprising:

5 a computer,

a plug coupled to said computer and adapted to receive an AC power supply,

10 a power conditioner coupled to said plug to convert said AC power supply to a DC power supply and to regulate said DC power supply to at least one DC voltage,

at least one DC power receptacle coupled to said power conditioner.

10. The apparatus of claim 10, wherein said at least one DC voltage comprises a plurality of
15 DC voltages and said at least one DC power receptacle comprises a plurality of DC power receptacles.

11. The apparatus of claim 9, wherein at least one of said plurality of DC power receptacles
is adapted to a first polarity and at least one of said plurality of DC power receptacles is
20 adapted to a second polarity.

12. The apparatus of claim 1 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus

further comprises at least one AC power receptacle coupled to said power conditioner.

13. A universal power cable, comprising:

5 a cable comprising a plurality of pairs of conducting wires and having a first end and a second end,

a first cable end connected to said first end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires, and

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a second cable end connected to said second end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires.

14. The cable of claim 13, further comprising a first connector alignment pin in said first
15 cable end and a second connector alignment pin in said second cable end, whereby said first cable end and said second cable end can mate in a single orientation.

15. The cable of claim 13, wherein said first cable end has a first shape and said second cable
end has a second shape complementary to said first shape, wherein said first cable end
20 and said second cable end can mate in a single orientation.

16. A power distribution apparatus, comprising:

a plug adapted to receive an AC power supply,

at least one AC power receptacle coupled to said plug,

5 a power conditioner coupled to said plug to convert said AC power supply to a DC power supply and to regulate said DC power supply to a plurality of DC voltages; and

a mating device connector comprising a plurality of DC power receptacles coupled to and corresponding to said plurality of DC voltages.

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17. The apparatus of claim 16, wherein at least one of said plurality of DC power receptacles is adapted to a first polarity and at least one of said plurality of DC power receptacles is adapted to a second polarity.

15 18. The apparatus of claim 16, further comprising a connector alignment pin in said mating device connector.

19. The apparatus of claim 16, wherein said mating device connector has an alignment shape.

20 20. The apparatus of claim 16 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus further comprises at least one lower-voltage AC power receptacle coupled to said power conditioner.

21. The apparatus of claim 20, wherein said mating device connector further comprises said at least one lower-voltage AC power receptacle.

5 22. A battery back-up apparatus, comprising:

an uninterruptible power supply unit providing an AC power supply,

at least one AC power receptacle coupled to said unit,

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a power conditioner coupled to said unit to convert said AC power supply to a DC power supply and to regulate said DC power supply to a plurality of DC voltages,

a mating device connector comprising a plurality of DC power receptacles coupled to and

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corresponding to said plurality of DC voltages.

23. The apparatus of claim 22, wherein at least one of said plurality of DC power receptacles is adapted to a first polarity and at least one of said plurality of DC power receptacles is adapted to a second polarity.

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24. The apparatus of claim 22, further comprising a connector alignment pin in said mating device connector.

25. The apparatus of claim 22, wherein said mating device connector has an alignment shape.

26. The apparatus of claim 22 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus further comprises at least one lower-voltage AC power receptacle coupled to said power conditioner.

27. The apparatus of claim 26, wherein said mating device connector further comprises said at least one lower-voltage AC power receptacle coupled to said power conditioner.

28. A computer power supply, comprising:

a computer,

a plug coupled to said computer and adapted to receive an AC power supply,

a power conditioner coupled to said plug to convert said AC power supply to a DC power supply and to regulate said DC power supply to a plurality of DC voltages,

a mating device connector comprising a plurality of DC power receptacles coupled to and corresponding to said plurality of DC voltages.

29. The apparatus of claim 28, wherein at least one of said plurality of DC power receptacles

is adapted to a first polarity and at least one of said DC power receptacles is adapted to a second polarity.

30. The apparatus of claim 28, further comprising a connector alignment pin in said mating
5 device connector.

31. The apparatus of claim 28, wherein said mating device connector has an alignment shape.

32. The apparatus of claim 28 wherein said AC power supply is at a first voltage and said
10 power conditioner further produces AC power at a second voltage, and said apparatus
further comprises at least one lower-voltage AC power receptacle coupled to said power
conditioner.

33. The apparatus of claim 32, wherein said mating device connector further comprises said
15 at least one lower-voltage AC power receptacle coupled to said power conditioner.

34. A power distribution apparatus for supplying power to at least one peripheral device,
comprising:

20 a plug adapted to receive an AC power supply,

at least one AC power receptacle coupled to said plug,

a power conditioner coupled to said plug to convert said AC power supply to a DC power supply and to regulate said DC power supply to a plurality of DC voltages,

a mating device connector comprising a plurality of DC power receptacles coupled to said DC power supply and corresponding to said plurality of DC voltages, and

a power cable, comprising

a cable comprising a plurality of pairs of conducting wires and having a first end and a second end, wherein said plurality of pairs of conducting wires correspond to said plurality of DC voltages,

a first cable end connected to said first end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires, said first cable end adapted to couple to said mating device connector, and

a second cable end connected to said second end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires, said second end adapted to fit a peripheral device.

35. The apparatus of claim 34, wherein at least one of said plurality of DC power receptacles is adapted to a first polarity and at least one of said plurality of DC power receptacles is adapted to a second polarity

36. The apparatus of claim 34, further comprising a connector alignment pin in said mating device connector and a connector alignment pin in said first end, wherein said first end aligns with said mating device connector.

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37. The apparatus of claim 34, wherein said mating device connector has a first alignment shape and said first end has a second alignment shape complementary to said first alignment shape, wherein said first end aligns in said mating device connector.

10 38. The apparatus of claim 34 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus further comprises at least one lower-voltage AC power receptacle coupled to said power conditioner.

15 39. The apparatus of claim 38, wherein said mating device connector further comprises at least one of said at least one lower-voltage AC power receptacle and said power cable further comprises at least one pair of AC conducting wires corresponding to said at least one of said at least one lower-voltage AC power receptacle, said first cable end further comprises a receptacle corresponding to and coupled to said at least one pair of AC
20 conducting wires, and said second cable end further comprises a receptacle corresponding to and coupled to said at least one pair of AC conducting wires.

40. A battery back-up apparatus for providing back-up power to at least one peripheral

device, comprising:

an uninterruptible power supply unit providing an AC power supply,

5 at least one AC power receptacle coupled to said unit,

a power conditioner coupled to said unit to convert said AC power supply to a DC power supply and to regulate said DC power supply to a plurality of DC voltages,

10 a mating device connector comprising a plurality of DC power receptacles coupled to and corresponding to said plurality of DC voltages, and

a power cable, comprising

15 a cable comprising a plurality of pairs of conducting wires and having a first end and a second end, wherein said plurality of pairs of conducting wires correspond to said plurality of DC voltages,

20 a first cable end connected to said first end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires, said first cable end adapted to couple to said mating device connector, and

a second cable end connected to said second end and comprising a plurality of

receptacles corresponding to and coupled to said plurality of pairs of conducting wires, said second end adapted to fit the peripheral device.

41. The apparatus of claim 40, wherein at least one of said plurality of DC power receptacles is adapted to a first polarity and at least one of said DC power receptacles is adapted to a second polarity.

42. The apparatus of claim 40, further comprising a connector alignment pin in said mating device connector and a connector alignment pin in said first end, wherein said first end aligns with said mating device connector.

43. The apparatus of claim 40, wherein said mating device connector has a first alignment shape and said first end has a second alignment shape complementary to said first alignment shape, wherein said first end aligns in said mating device connector.

44. The apparatus of claim 44 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus further comprises at least one lower-voltage AC power receptacle coupled to said power conditioner.

45. The apparatus of claim 44, wherein said mating device connector further comprises at least one of said at least one lower-voltage AC power receptacle coupled to said power conditioner circuit and said power cable comprises at least one pair of AC conducting

wires corresponding to said at least one of said at least one lower-voltage AC power receptacle, said first cable end further comprises a receptacle corresponding to and coupled to said at least one pair of AC conducting wires, and said second cable end further comprises a receptacle corresponding to and coupled to said at least one pair of AC conducting wires.

46. A computer power supply for supplying power to at least one peripheral device, comprising:

a computer,

a plug coupled to said computer and adapted to receive an AC power supply,

a power conditioner coupled to said plug to convert said AC power supply to a DC power supply and to regulate said DC power supply to a plurality of DC voltages,

a mating device connector comprising a plurality of DC power receptacles coupled to and corresponding to said plurality of DC voltages, and

a power cable, comprising

comprising

a cable comprising a plurality of pairs of conducting wires and having a first end and a second end, wherein said plurality of pairs of conducting wires correspond to said plurality of DC voltages,

5 a first cable end connected to said first end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires, said first cable end adapted to couple to said mating device connector, and

10 a second cable end connected to said second end and comprising a plurality of receptacles corresponding to and coupled to said plurality of pairs of conducting wires, said second end adapted to fit the peripheral device.

47. The apparatus of claim 46, wherein at least one of said plurality of DC power receptacles is adapted to a first polarity and at least one of said plurality of DC power receptacles is adapted to a second polarity.
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48. The apparatus of claim 46, further comprising a connector alignment pin in said mating device connector and a connector alignment pin in said first end, wherein said first end aligns with said mating device connector.
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49. The apparatus of claim 46, wherein said mating device connector has a first alignment shape and said first end has a second alignment shape complementary to said first alignment shape, wherein said first end aligns in said mating device connector.

50. The apparatus of claim 46 wherein said AC power supply is at a first voltage and said power conditioner further produces AC power at a second voltage, and said apparatus further comprises at least one lower-voltage AC power receptacle coupled to said power conditioner.

51. The apparatus of claim 50, wherein said mating device connector further comprises at least one of said at least one lower-voltage AC power receptacle coupled to said power conditioner and said power cable comprises at least one pair of AC conducting wires corresponding to said at least one of said least one lower-voltage AC power receptacle, said first cable end further comprises a receptacle corresponding to and coupled to said at least one pair of AC conducting wires, and said second cable end further comprises a receptacle corresponding to and coupled to said at least one pair of AC conducting wires.